Kasna antraciklinska kardiotoksičnost: prikaz mladića s osteosarkomom

Late anthracyclin-associated cardiotoxicity: a case presentation of a young man with osteosarcoma

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Uvod: Kardioonkologija je novo interdisciplinarno područje u kardiologiji usmjereno na značajno smanjenje kardiovaskularnog morbiditeta i smrtnosti te poboljšanje kvalitete života u bolesnika oboljelih od zloćudnih bolesti. Stope preživljavanja zloćudnih bolesti su u stalnom porastu, uglavnom zbog pojave nove, učinkovitije i ciljane terapije. Međutim, mnogi novi lijekovi zajedno s nekim od starijih kemoterapijskih lijekova, kao što su antraciklini, potencijalno su kardiotoksični. Kardiotoksičnost nepovoljno utječe na prognozu bolesnika oboljelih od zloćudne bolesti pa je njena prevencija kao i liječenje ključno za poboljšanje kvalitete života.[1]

Prikaz slučaja: Prikazujemo slučaj mladića koji je u dobi od 18 godina izliječen od osteosarkoma femura amputacijom noge i kemoterapijskim liječenjem koje je uključivalo antraciklin. Nažalost, dalje nije bio u kardiološkom praćenju. Hospitaliziran je četrdesetoj godini života zbog teške zaduhe, navodeći da je proteklih godina slabije tolerirao fizički napor i imao povremeno palpitacije. Utvrđena je dilatativna kardiomiopatija s reduciranom ejekcijskom frakcijom (LVEF od 35%). Daljnji klinički tijek je kompliciran s ventrikularnom tahikardijom te je implantiran kardioverter-defibrilator. Sad se liječi optimalnom medikamentoznom terapijom koja uključuje karvedilol, male doze furosemida, eplerenon, sacubitril-valsartan i u redovitom je kardiološkom praćenju.

Zaključak: Antraciklinska kardiomiopatija se prezentira kao rana i kasna. Rana kardiotoksičnost se javlja unutar godinu dana po aplikaciji antraciklina i to sa znacima kongestivnog srčanog popuštanja. Kasna prezentacija antraciklinske kardiomiopatije odnosi se na bolesnike koji razviju srčano popuštanje 10-20 godina po antraciklinskom liječenju. Bolest može dugo biti i asimptomatska te stoga svi bolesnici koji su primali antracikline trebaju dugogodišnji kardiološki nadzor. Veliko ograničenje je samo praćenje LVEF jer se promjene LVEF obično se javljaju u kasnijoj fazi kada je već došlo do značajne toksičnosti. Danas se u bolnici počinjemo koristi s *global longitudinal strain* za rano otkrivanje promjena u kontrakciji srca. Cilj je rano otkrivanje znakove toksičnosti i uvođenje terapije radi poboljšanja LVEF i smanjenja rizika od razvoja ireverzibilne kardiomiopatije.

Introduction: Cardiooncology is a recently developed (rapidly developing) field in cardiology aimed at significantly reducing cardiovascular morbidity and mortality and improving quality of life in cancer survivors. Cancer survival rates have been constantly increasing, mainly because of the advent of new, more potent and targeted therapies. However, many of the new therapies – along with some of the older chemotherapeutic regimens such as anthracyclines – are potentially cardiotoxic. Cardiotoxicity adversely affects prognosis in cancer patients, thus its prevention and treatment are crucial to improve quality and standards of care.[1]

Case report: We present a case of a young man cancer survivor who received treatment for osteosarcoma at age 18 years with a regimen that included an anthracycline. Unfortunately, he did not have routine cardiac follow-up in the survivorship period. He presented in his 40s with dyspnea. On further inquiry, he had been experiencing exertional dyspnea and poor exercise tolerance for over a decade. He was diagnosed with heart failure with a reduced left ventricular ejection fraction (LVEF of 35%). His clinical course was complicated by recurrent sustained ventricular tachycardia and defibrillator was implanted. Today he receives optimal medical treatment which includes (carvedilol, furosemid, eplerenon, sacubitril-valsartan).

Conclusion: Anthracycline cardiotoxicity most frequently presents as either early-onset chronic progressive (within the first year after completion of chemotherapy) or late-onset chronic progressive (greater than 1 year after completion of therapy) left ventricular systolic dysfunction, which is usually irreversible. Clinically, patients present with dilated cardiomyopathy. Those with late-onset chronic progressive cardiotoxicity can present as long as 1–2 decades after completion of cancer therapy. One major limitation to the use of LVEF to monitor for cardiac dysfunction is that changes in LVEF usually occur at a later stage when significant toxicity has already occurred. To minimize the risk of irreversible cardiomyopathy, the goal is to identify signs of toxicity as early as possible so medical therapy can be initiated. Today, global longitudinal strain is used in hospital for early detection of changes in cardiac contractility. In patients with anthracycline toxicity, earlier initiation of medical therapy is associated with an increased likelihood of subsequent improvement in LVEF.

LITERATURE

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